**Math 3200 – Chapter 2 Assignment for those who did not complete the first one! Due Dec. 12! Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part I – Multiple Choice: Place the letter of the correct answer in the space provided at the end.**

 **(1 mark each)**

1. Which of the following represents the graph of **?**

A) B)

C) D)

2. Given that has been stretched horizontally by a factor of **,** reflected across the

x-axis, moved left 3 units, and moved up 1 unit, which of the following equations represents the transformed image?

 A) **** B) ****

C) **** D) ****

3. Given **,** which of the following graphs represents a transformation ****

for ****?





B)

A)



 C)

D)



4. What are the domain and range for ?

 A) **** B) ****

C) **** D) ****

5. The graph of  is shown in the graph. Which of the following equations could

 represent the equation for ?

 A) 

 B) 

 C) 

 D) 

6. The domain of  is undefined, which of the following best describes the

 value of  ?

 A)  B)  C)  D) 

7. The domain of  is described as, which of the following best describes the

 value of  ?

 A)  B)  C)  D) 

8. The graph of  is given. What points would be invariant points when considering the graphs of  and ?



 A) 

 B) 

 C) 

 D) no invariant points

9. The graph of is given.

Which of the following would represent the graph of ?

A) B) C) D)









10. Given the graph of  shown, which of the following equations, when graphed with , would form a parabola which opens sideways?

 A)  B) 

 C)  D) 

11. Given , which of the following would best describe the invariant points for

  and ?

 A)  B) 

 C)  D) no invariant points

12. If , which best describes the domain and range of ?

 A) **** B) ****

 C) **** D)  ****

13. Given the graph of  shown , which of the following graphs would best represent

 the graph of ?



 A) B) C) D)  is not



 defined





14. Use the graph provided to solve the equation, .



 A) 

 B) 

 C) 

 D) 

15. Using the graph provided, what will the solution to the equation  be ?



 A)  B) 

 C)  D) no solution

**Part II**

16. Sketch the graphs of each of the following functions on the grid provided.

 State the domain and the range for each radical function and any invariant points

 A)  B) 





Domain:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Domain:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Invariant points:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Invariant points:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

C)  D) 



Domain:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Domain:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Invariant points:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Invariant points:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17. Algebraically determine the domain of

A) 

18. A) Solve  graphically.

 B) Algebraically solve . State the restrictions on for the equation

Answers:

1. C 2. C 3. B 4. C 5. B 6. B 7. C

8. C 9. B 10. D 11. B 12. C 13. B 14. D 15. B

16.

 A) B)





Domain:  Domain: 

Range:  Range: 

Invariant points:  Invariant points: none

 C) D) E)

 

Domain: undefined Domain:  Domain: 

Range: undefined Range:  Range: 

Invariant points: none Invariant points: Invariant points:

  

17. A)  B) 

18. A) x= 8 B) x = - 1 and x = 4 (no restrictions on x since is always positive)



C) x=1, restrictions on x: 